## Iowa Office of Consumer Advocate Response to Legislative Interim Committee Energy Efficiency

November 13, 2007

Presented by Jennifer Easler Joseph Murphy 1. How much money does each IOU spend annually on EE? How is this money collected? Do the utilities have a separate energy efficiency account? If so, does interest accumulate on this money? If so, how is the interest spent?

The following tables represent IOU annual spending on EE over the period of time in which their current IUB approved EE plans have been in effect.

Table 1 Annual IOU spending on EE

Year	Energy Efficie	ncy Spending -\$		
	-			Percent
	Desilonat		\/==i====	Over/(Under)
1450	Budget	Actual	Variance	Budget
MEC	0.0 0 40 000	00 004 540		000/
2006	23,346,000	30,004,548	6,658,548	29%
2005	22,887,000	26,521,880	3,634,880	16%
2004	21,677,000	23,487,334	1,810,334	8%
2003	16,004,540	20,197,584	4,193,044	26%
IPL				
2006	45,405,545	45,442,058	36,513	0%
2005	38,294,123	44,457,768	6,163,645	16%
2004	37,365,699	43,053,265	5,687,566	15%
2003	23,089,975	25,866,305	2,776,330	12%
	,_,	,- ,	, ,	
Aquila				
2006	2,781,167	4,256,243	1,475,076	153%
2005	2,705,722	3,355,809	650,087	124%
2004	2,640,000	2,335,588	(304,412)	88%
2003	1,620896	1,584,202	36,694	2%
	,	.,,	,	
<b>ATMOS</b>				
2006	63,625	157,195	93,570	147%
2005	63,625	23,620	(40,005)	-63%
2004	63,625	44,090	(19,535)	-31%
2003	40,170	14,084	(26,086)	-65%
	.5,	,	(==,==0)	_ = 7.0

Sources: Companies' Annual Reports to IUB

Table 2: 2006 IOU EE Spending by Class

**Total 2006 Energy Efficiency Spending** 

		Electric	Gas	Gas & Electric
_				
MEC	Residential	10,890,746	15,776,734	26,667,480
	Nonresidential	19,113,802	2,404,690	21,518,492
	Total	30,004,548	18,181,424	48,185,972
IPL	Residential	11,334,490	7,069,044	18,403,534
	Nonresidential	34,107,569	1,523,319	35,630,888
	Total	45,442,059	8,592,363	54,034,422
Aquila	Residential		3,517,042	3,517,042
-	Nonresidential		739,200	739,200
	Total		4,256,242	4,256,242
ATMOS	Residential 1		35,242	35,242
	Nonresidential Total		35,242	35,242
	·		00,242	, 00,242
All IOUs	Residential	22,225,236	26,398,062	48,623,298
	Nonresidential	53,221,371	4,667,209	57,888,580
	Total	75,446,607	31,065,271	106,511,878

Note: 1- Also includes school based EE education

Source: Utilities' Responses to Board Data Requests, Docket No. NOI-07-2 and ATMOS Annual Report

Table 3: IOU Residential Programs and Incentives<sup>1</sup>

Interstate Power and Light 408,263 Residential Customers

MidAmerican Energy 617,253<sup>2</sup> customers

	IPL					MEC				
2006 Electric Residential EEP	Incentives	# part.	kWh	Inc.\$	kW	Incentives	# part.	kWh	Inc. \$	kW
Residential – EEPs <sup>3</sup>	\$6,972,227		27%	47%	41%	\$6,130,983		21%	43%	36%
Equipment Rebates	\$4,290,769	58,053 <sup>4</sup>	59%	62%	58%	\$1,958,889	6,451	17%	32%	15%
Appliance Recycling	\$693,407	4,731	17%	10%	11%	n/a				
Home Audits	\$602,403	1,475	8%	9%	7%	\$1,366,837	29,920 <sup>5</sup>	47%	22%	28%
New Construction	\$1,041,284	974	10%	15%	16%	\$2,473,842	344	30%	40%	55%
Low Income	\$344,365	2,703	6%	5%	9%	\$331,415	2,867	6%	5%	2%

Interstate Power and Light
197,232 Customers

MidAmerican Energy 500,000<sup>6</sup> customers

Aquila 130,507 Customers

	IPL				MEC				Aquila			
2006 Gas Res. EEP	Incentives	# part.	therm	Inc.\$	Incentives	# part.	therm	Inc.\$	Incentives	#part.	therm	Inc.\$
Residential EEPs <sup>7</sup>	\$5,45,626		74%	88%	\$12,764,347		82%	90%	\$3,111,342		82%	90%
Equipment Rebates	\$2,211,757	16,250	48%	37%	\$2,615,587	6,451	20%	20%	\$935,990	6,914	53%	30%
Home Audits-Env.	\$1,062,876	1,815	30%	18%	\$3,112,380	29,920	25%	24%	\$1,334,981	4,444	36%	43%
New Construction	\$ 908,188	483	10%	15%	\$5,599,335	344	46%	44%	\$246,288	215	6%	8%
Low Income	\$1,762,805	810	12%	30%	\$1,437,045	2,867	8%	11%	\$538,340	4,184	4%	17%
Education									\$55,743	1,044	2%	2%

<sup>&</sup>lt;sup>1</sup> Sources: IOU Annual EEP Reports for 2006 and filings in IUB Docket No. NOI-07-2

<sup>2</sup> Total MEC residential includes Illinois and South Dakota

<sup>3</sup> Residential incentives, and savings relative to overall EEP (excluding load management)

<sup>4</sup> Includes about 50,000 accounts for CFLs (about 190,000 units)

<sup>5</sup> Includes 118,122 bulbs from Change the World campaign

<sup>6</sup> Estimated – 481,976 customers in 2005

<sup>7</sup> Residential incentives and savings relative to overall EEP (excluding load management)

Table 4: IOU Non-residential Programs and Incentives<sup>1</sup>

**Interstate Power and Light** 74,056 Non-res Customers

MidAmerican Energy 97,000<sup>2</sup> Non-res customers

	IPL					MEC				
2006 Electric Non-res EEP	Incentives	# part.	kWh	inc.\$	kW	Incentives	# part.	kWh	inc. \$	kW
Non-res – EEPs <sup>3</sup>	\$7,709,788		73%	53%	59%	\$8,115,484		79%	57%	64%
Prescriptive Rebates	\$1,102,223	3,012	6%	13%	12%	\$2,894,449	57,235	52%	36%	53%
Custom Rebates	\$5,099,352	187	75%	62%	72%	\$306,081	. 89	3%	4%	2%
Performance Contract / Bid	\$838,548	. 26	10%	10%	8%	\$472,867	21	10%	6%	7%
New Construction	\$838,749	2	4%	10%	3%	\$3,155,869	39	28%	39%	32%
Audit (small comm.)	\$296,465	264	5%	4%	5%	\$461,764	1,814	2%	6%	3%
Audit (large comm.)	n/a					\$824,454	136	5%	10%	. 3%

**Interstate Power and Light** 25.871 Customers

MidAmerican Energy 50.000<sup>4</sup> customers

Aquila 15.634 Customers

25,671 Customers				50,000 customers			13,034 Customicis					
	IPL				MEC				Aquila			
2006 Gas	Incentives	# part.	therm	inc.\$	Incentives	# part.	therm	inc.\$	Incentives	#part.	therm	inc.\$
Non Res. EEP												
Non-Res EEPs⁵	\$776,344		26%	12%	\$ 1,461,060		18%	10%	\$333,230		18%	10%
Equipment Rebates	\$405,662	1,270	33%	52%	\$ 225,975	978	22%	15%	\$117,431	366	54%	35%
Custom Rebates	\$236,369	46	39%	30%	\$ 287,070	78	19%	20%	\$131,213	67	46%	39%
New Construction	\$125,259	1 .	-%	16%	\$ 356,513	16	35%	24%				
Audit Lg.					\$ 74,737	140		5%				
Audit Sm. Comm.					\$ 513,052	880	21%	35%	\$84,566 <sup>6</sup>	183		25%
Perf. Contract/Bid	\$ 9,053	3	31%	1%	\$ 3,713	1	2%	_	n/a			

<sup>&</sup>lt;sup>1</sup> Sources: IOU Annual Reports for 2006 and responses to IUB Docket No. NOI-07-2. <sup>2</sup> Estimate (including SD, IL)

<sup>&</sup>lt;sup>3</sup> Non-residential incentives and savings contribution relative to overall EEP (excluding load management)

<sup>&</sup>lt;sup>4</sup> Estimate

<sup>&</sup>lt;sup>5</sup> Non-residential incentives and savings contribution relative to overall EEP (excluding load management)

<sup>&</sup>lt;sup>6</sup> Report reflect all spending as administrative

## How is IOU EE money collected?

In contrast to earlier statutory requirements providing for deferred recovery of cost recovery pursuant to contested case process, Iowa Code § 476.6(16)e currently provides for contemporaneous recovery of authorized energy efficiency costs:

A gas or electric utility required to be rate-regulated under this chapter may recover through an automatic adjustment mechanism filed pursuant to subsection 8, over a period not to exceed the term of the plan, the costs of an energy efficiency plan approved by the board . . .

The cost of energy efficiency is recovered from customer classes eligible to participate in IOU energy efficiency programs. The only class exempted from funding and participating in IOU energy efficiency is natural gas transportation customers, i.e., those customers using the regulated distribution service of the natural gas utility to receive natural gas purchased from a competitive natural gas supplier.

The IOUs' monthly bills to all eligible EEP customers include a non-itemized energy efficiency charge, which is assessed on a per unit (kWh or CCF) basis using forecasted sales for the annual cost-recovery period. The amount and the rate of collection from each customer class is determined based on the IUB approved EEP budgets after the current end of year's spending and collection from that class are reconciled. Once the current end of the year's under/over collection is determined, the amount to be collected in the subsequent year is then calculated by adding the amount of under/over recovery to the next year's budgeted spending. A rate then is calculated for each customer class by dividing the total amount to be collected from that class's estimate of usage of that class in the upcoming year (KWh or CCF).

The tariffs by which these charges are implemented are included as Appendix A.

#### Do the utilities have a separate energy efficiency account?

Yes. Iowa Code § 476.6(16)e contemplates that IOUs maintain detailed and auditable records for compliance.

#### If so, does interest accumulated on this money?

Iowa Code § 476.6(16)e does not allow for interest to be charged.

The current legislative framework contemplates the contemporaneous recovery of energy efficiency expenditures — or cost recovery simultaneously with expenditures. In recent years, actual energy efficiency expenditures have exceeded budgeted spending. Interest is not paid to utilities for under-recovered amounts, and it is not paid to ratepayers when there is over-recovery of energy efficiency funds.

#### If so, how is the interest spent?

n/a

#### 2. RATEPAYERS

## How does the EE spending actually get paid for by rate payers?

By revising the customer's tariff, following energy efficiency cost recovery (EECR) reconciliation, as discussed above. In general, costs incurred for a specific customer class are paid for by that customer class. Some programs that provide benefits to all customers are recovered from all customer classes.

### 3. DUPLICATION

## What duplication, if any, occurs in the administration and implementation of these programs?

Duplication exists through the current process in which utilities individually (1) determine energy efficiency potential, (2) design utility energy efficiency programs, (3) implement processes (internal and external) for administering, marketing energy efficiency programs, and (4) undertake monitoring, verification and evaluation of energy efficiency programs and results.

#### Determining EE potential

Certain aspects of determining energy efficiency potential are utility-specific, including determining base-line efficiency and economic EE potential (utility-specific costs that can be avoided through EE). Other aspects of determining EE potential can be more efficiently performed on a joint basis, including: technical EE potential (efficiency that could be realized by customers' immediate adoption of most efficient commercially available measures and technologies); and achievable EE potential (what savings can be expected given customer attitudes, adoption rate of efficiency measures). In fact, the IOUs are performing such assessments on a joint basis.

#### Designing and Implementing EE programs

IOUs, in general, promote similar energy efficiency measures and processes through various and differing utility-specific programs. Each utility creates its own program criteria, delivery process, accounting/processing structure, marketing, customer education, trade ally education and promotions for virtually identical EE measures.

Greater efficiency could be (and has to some extent been) achieved by coordinating utility efforts and adopting uniform program requirements. Examples of improved coordination include: the IOU's commercial and residential new construction programs, the Change-a-Light, Change-the-World compact fluorescent light bulb promotion program, residential audit program, and low income programs.

## Monitoring, verification and evaluation of EE programs

Each IOU implements processes to monitor, verify and evaluate individual EE program performance. Because the programs are different among utilities, the processes for monitoring, verification and evaluation of such programs are also performed by the individual utilities.

What is the cost of duplication? Unknown. The general area of duplication of energy efficiency programs and plans among and between utilities can be effectively addressed through the adoption statewide energy efficiency plan requirements applicable to all IOUs, RECs and Municipal utilities. The increased efficiency of an independent third-part administrator could be immense. Moreover, the efficiencies of this system also hold the potential to yield significant increases in EE program participation.

#### 4. MARKETING

How much does each IOU spend on promoting or marketing its energy efficiency program? See Table 5 below.

<u>Table 5</u> **lowa 2006 Spending on Promotion or Marketing** 

		Electric		G	as	Gas &	Electric
		Goal	Actual	Goal	Actual	Goal	Actual
MEC	Residential	666,090	706,090	577,830	848,508	1,243,920	1,554,598
	Nonresidential <b>Total</b>	700,910 <b>1,367,000</b>	937,084 <b>1,643,174</b>	162,170 <b>740,000</b>	148,628 <b>997,136</b>	863,080 <b>2,107,000</b>	1,085,712 <b>2,640,310</b>
IPL	Residential	932,064	519,145	537,824	263,319	1,469,888	782,464
	Nonresidential <b>Total</b>	1,318,283 <b>2,250,347</b>	1,177,678 <b>1,696,823</b>	210,282 <b>748,106</b>	161,754 <b>425,073</b>	1,528,565 <b>2,998,453</b>	1,339,432 <b>2,121,896</b>
Aquila <sup>1</sup>	Residential			749,940	881,438	749,940	881,438
	Nonresidential Total			451,598 <b>1,201,538</b>	438,892 <b>1,320,331</b>	451,598 <b>1,201,538</b>	438,892 <b>1,320,331</b>
ATMOS	Residential Nonresidential Total						
Total IOU's 2	Residential Nonresidential <b>Total</b>	1,598,154 2,019,193 <b>3,617,347</b>	1,225,235 2,114,762 <b>3,339,997</b>	1,490,624 598,251 <b>2,088,875</b>	1,552,547 529,828 <b>2,082,374</b>	3,463,748 2,843,243 <b>6,306,991</b>	3,218,501 2,864,036 <b>6,082,537</b>

<sup>1-</sup> Combined Advertising/Promotion and Program Administration

Source: Utilities' Responses to Board Data Requests, Docket No. NOI-07-2

<sup>2-</sup> Assuming half of Aquila's spending was for promotion and marketing.

## How does this compare to Muni's and REC's?

Unknown. Munis and RECs do not submit EEP expenditures by spending categories required of IOUs.

## Is there duplication?

See answer to Question 3. If program offerings and standards were uniform, more joint marketing would be possible. With statewide, uniform EE plans, there could be efficient and effective statewide marketing. The cost savings from the existing structure (individual utilities each developing and marketing individual programs) could be significant. Equally important, customer participation may be greatly increased.

#### 5. ACCOUNTABILITY

## How are energy efficiency savings calculated?

In general, the savings are calculated by multiplying the number of efficient measures installed during a period by the average savings impact such measure provides. The average savings a measure provides is initially determined through the Joint IOU assessment of savings potentials. The assessment involves analysis of several hundred energy efficiency measures encompassing all sectors and segments of the society. The parameters so determined are then fine tuned and calibrated by each utility based on the characteristics of the measure, such as the incremental efficiency difference of the measure compared to its base line value, size of the measure, age of the measure and so forth. Each utility has in its tracking system an algorithm that applies these fine tunings when a customer applies for installation of a new efficient measure. Of course, in cases where the efficiency characteristics of a measure or measures are not already determined, such as in the cases of Custom Rebate or Performance Contracting programs, the IOUs evaluate the saving impacts of these measures.

## How do our utilities determine cost-effectiveness of energy efficiency programs?

The cost-effectiveness is determined by comparing the incremental costs of measures considered included in a program to the program's life-cycle benefits; which is the utility's life-cycle cost savings resulting from the program implementation. This comparison is carried out by calculating the ratio of the present value of benefits to the present value of costs. A program or plan is cost-effective if the benefits/cost ratio is equal or greater than one. In devising a cost-effective program, which could have been comprised of several measures, it is important that the program as a whole is cost-effective even though it may deliver some measures that are not cost-effective.

## What measures do they use?

IUB Rule 35.2(476) defines four acceptable economic tests to compare the present value of applicable benefits to the present value of applicable costs of an energy efficiency program or plan. The tests are the participant test, the ratepayer impact test, the societal test, and the utility cost test. If a utility uses a test other than the societal test as the criterion for determining the cost-effectiveness of utility implementation of energy efficiency measures, the utility shall describe and justify its use of the alternative test or combination of tests and compare the resulting impacts with the impacts resulting from

societal test. 199 IAC 35.8(2). The main inputs for each of the defined benefit/cost tests are:

- Measure energy and demands
- Measure costs
- Measure lifetime
- Discount rate
- Avoided costs of energy and capacity by costing period

The IUB defined Benefit/Cost tests are devised to evaluate energy efficiency programs from various perspectives, taking into account the following benefits and costs:

<u>Perspective</u>	<b>Benefits</b>	Costs
Participant	Reduction in electricity bill plus utility incentive	Direct costs of participation
Ratepayer Impact	Avoided supply costs (production, transmission, and distribution) based on energy and load reductions	Utility program costs (including incentives) plus net lost revenues from reduced sales
Utility (revenue requirements)	Same as above	Utility program costs (including incentives to participants)
Total Resource Cost	Same as above	Total program costs to the utility and participants (i.e., incremental measure costs plus utility administrative costs)
Societal	Same as above plus externality benefits, such as reduced pollution	Same as TRC (above)

#### 6. PROGRAMS

What are the similarities and differences between the IOU EE programs? What are the similarities and differences between the IOU, REC and Muni EE programs for both residential and commercial buildings? For example, do they all offer rebates and energy audits? How would you rank order the effectiveness of IOU, REC and Muni EE programs? Who is doing the best? Who needs to do more? Which programs have the highest cost-effectiveness? Which ones the lowest? Why? How can these programs be made more cost-effective? What is the next "low hanging fruit"?

The IOUs EE plans are subject to rigorous analysis, standards and oversight. These plans are comprehensive, cost-effective and designed to achieve goals that are predicated on a

thorough, painstaking assessment of energy savings potential. IOU plans are subject to ongoing monitoring, analysis and evaluation to further improve performance.

While there are certainly some exemplary non-rate-regulated EE plans, the IOUs on balance have the most complete and comprehensive energy efficiency program offerings.

The program differences and utility EEP performance metrics are addressed in Attachment B.

### 7. RECIPIENTS

## What percent of EE annual spending goes to new construction?

Table 6

Iowa 2006 Spending on New Construction

		Elec	Electric		ıs	Gas & Electric		
		Goal	Actual	Goal	Actual	Goal	Actual	
MEC	Residential	1,323,000	2,750,994	3,026,000	6,224,775	4,349,000	8,975,769	
	Nonresidential	3,714,000	3,977,006	496,000	461,595	4,210,000	4,438,601	
	Total	5,037,000	6,728,000	3,522,000	6,686,370	8,559,000	13,414,370	
IPL	Residential	1,140,000	1,170,028	1,140,000	1,036,855	2,280,000	2,206,883	
	Nonresidential	2,269,000	1,048,087	366,000	179,454	2,635,000	1,227,541	
	Total	3,409,000	2,218,115	1,506,000	1,216,309	4,915,000	3,434,424	
Aquila	Residential Nonresidential			373,700	324,432	373,700	324,432	
	Total			373,700	324,432	373,700	324,432	
ATMOS	Residential Nonresidential <b>Total</b>							
Total IOU's	Residential	2,463,000	3,921,022	4,352,850	7,423,846	7,002,700	11,507,084	
	Nonresidential	5,983,000	5,025,093	862,000	641,049	6,845,000	5,666,142	
	Total	8,446,000	8,946,115	5,214,850	8,064,895	13,847,700	17,173,226	

Source: Utilities' Responses to Board Data Requests, Docket No. NOI-07-2

Table 7

2006 New Construction EE Expenditure as Percent of Total Spending

		Electric	Gas	Gas & Electric
MEC	Residential	25%	39%	34%
	Nonresidential	21%	19%	21%
	Total	22%	37%	28%
IPL	Residential	10%	15%	12%
	Nonresidential	3%	12%	3%
	Total	5%	14%	6%
Aquila	Residential	-	9%	9%
	Nonresidential	-	_	-
	Total	-	8%	8%
ATMOS	Residential	_	_	-
	Nonresidential		-	-
	Total	-	-	-
Ali IOUs	Residential	18%	28%	24%
1003	Nonresidential	9%	14%	10%
	Total	12%	26%	16%

Source: Utilities' Responses to Board Data Requests, Docket No. NOI-07-2

What percent of EE spending goes to commercial and residential buildings that are five years of age and newer? Ten years of age and newer?

OCA does not have the information needed to answer this question and is unsure whether the IOUs track this particular information. However, OCA is aware of EE program criteria and characteristics that may be of interest and relevant to the information requested.

- Energy efficiency audits are typically performed on buildings that are 10 years of age and older. Most residential and non-residential audit expenditures would be for buildings 10 years of age and older.
- In the case of non-residential EE expenditures, custom rebates are commonly utilized when new construction is too far advanced to qualify for a new construction rebate. However, customer rebates could also be utilized for projects in older existing buildings.

- New construction program expenditures are primarily if not exclusively related to new buildings.
- Most major (expensive) equipment replacement and retrofit energy
  efficiency measures will likely take place toward the end of the useful life
  of the existing appliance/measure. While there are certainly exceptions, a
  significant portion of residential equipment and energy efficiency rebates
  are likely being implemented in homes and buildings more than 5-10 years
  old.

## What percent of eligible business, institutions, and residence participate in utility programs?

See Tables 3 and 4 in response to Question 1.

#### 8. LOAD MANAGEMENT

#### How do the load management programs work?

In exchange for agreeing to reduce electric consumption to an agreed upon level when an interruption is called by the utility (typically during system peak periods), the customer receives incentives in the form of utility bill credits or utility rate discounts.

## The IOUs have 3 types of interruptible programs:

- 1- Nonresidential Interruptible, in which in return for the financial incentives, typically credit against the customer's billing demand charge, the large nonresidential customer contractually is obligated to reduce an agreed amount of electric load when it is asked by the utility.
- 2- Nonresidential Voluntary Interruptible invites customers to respond to interruption events called by the utility; however, the customer will be under no obligation to respond to an interruption event. In this service, prior to interruption, the parties negotiate price, amount of load and the duration of the interruption.
- 3- Residential Interruptible, which is more commonly called curtailment program or appliance cycling program. In return for the incentives (bill credits), the utility is given permission to directly control the customer's central air conditioners, air-source heat pumps, and hot water heaters through remote signaling devices. Typically, central air conditioner DLC programs provide credits only during the summer peak load months when A/C load is prevalent.

Another form of load management is utility time of use (TOU) pricing, which encourages through price signals the shifting of electric consumption to off-peak energy periods. TOU pricing, like interruptible programs, requires advanced metering technology. The availability/use of TOU rates for non-residential customers is far more extensive than for residential customers, due in part to the need for more advanced metering technology than is currently installed at residential premises. The electric IOUs are planning to test advanced metering projects for residential customers to evaluate the economics of an expanded TOU offering. TOU load management is typically less precise in terms of load impacts than an interruptible or direct load control program. Some non-rate-regulated utilities reflect TOU rates as part of an EEP. IOUs do not.

## What are the pluses and minuses of the load management programs?

- +Virtual generation
- +Provides energy cheaper than from alternative sources
- +Superiority in terms of environmental impacts, but only if (1) the interrupted customer does not switch to back-up generation fueled by polluting resources, and (2) the utility calls upon interruptible load prior to the utility's diesel back-up generation.
- +Provides a quick response to reliability issues that could reduce or eliminate the need to interrupt service to firm customers
- +Can postpone the need to construct generation facilities

#### Minuses:

- -Some inconvenience and may reduce standard of living
- -May lower economic activities, production of goods & services
- -Load management does not yield sustained kWh energy reductions and associated benefits that other EE programs provide. Many customers cannot tolerate repeated interruptions of extended duration. When interruptions are called, consumption is shifted to a later period.

## How much money are we spending on these programs by each utility?

Iowa 2006 Spending on Electric Load Management Programs

		Incentive	Other	Total
MEC	Residential	1,712,262	1,209,920	2,922,182
	Nonresidential	6,674,025	1,057,377	7,731,402
	Total	8,386,287	2,267,297	10,653,584
IPL	Residential	1,948,507	306,611	2,255,118
	Nonresidential	22,059,624	294,672	22,354,296
	Total	24,008,131	601,283	24,609,413
Total IOUs	Residential	3,660,769	1,516,531	5,177,300
	Nonresidential	28,733649	1,352,049	30,085,698
	Total	32,394,418	2,868,580	35,262,997

Source: Utilities' Responses to Board Data Requests, Docket No. NOI-07-2

#### Who is participating in these programs?

Nonresidential: industrial customers, commercial customers, schools, governmental entities. Within these broad categories, there is a wide variety of participants. Qualifications are size threshold and ability to reduce load to agreed upon level when interruptions are called.

Residential: single family homes with central air conditioning systems.

## How are the participants selected?

Nonresidential: Large commercial and industrial customers who can curtail at least a predetermined kW when signaled by the IOU (MEC 250 kW, IPL 200 kW) are eligible to participate. Currently, participation is open to eligible customers, but can be limited if tariff allows.

## How can load management programs be made more cost-effective?

Generally, cost-effectiveness is improved by reducing program costs without losing program participants. The greatest program cost is in incentives (rate discounts) available to interruptible customers. Another way of increasing value of this program would be to generate revenue from wholesale energy market participants who benefit from availability of interruptible load.

#### Would competitive bidding work?

Competitive bidding is an attractive concept because it addresses the economics that drive individual customer participation. It also allows the utility to control the amount of interruptible capacity it wants in its portfolio. Under the current system, it is difficult to predict how changes in interruptible credit level would impact participation.

The Midwest ISO demand response working group is studying ways to better develop and integrate demand response in the wholesale energy market. *See also* Press Release www.midwestmarket.org (Nov. 12, 2007).

#### 9. CONTRACTORS AND WORKERS

# Who are the contractors that deliver the EE service on behalf of the utility companies?

The following entities have been identified through IOU reporting as playing a significant role in the IOU delivery of EE programs:

A-TEC Energy Corp. (fulfillment contractor for several programs, including IOU residential audit programs); The Weidt Group (fulfillment contractor for MEC Commercial New Construction Program); The Energy Group (MEC Nonresidential Custom program and Multifamily Housing program); Nexant (MEC Non-residential energy audits and Efficiency Bid); Iowa Finance Authority (IOU Multifamily Housing Program); Habitat for Humanity (Aquila); Iowa Department of Human Rights – Community Action Agencies (IOU Low Income programs), Trade Allies (IOU relationships with retailers of eligible measures/appliances); Wisconsin Energy Conservation Corp (Change a Light Change the World CFL promotion); Iowa Department of Natural Resources and Trees Forever (IOU Trees Programs); Nexus Energyguide (MEC online energy audits); and Franklin Energy Services (IPL Performance Contracting Administrator).

## How are they chosen?

RFP and/or qualifications, subject to prudence review.

## What are their qualifications?

Varies.

How many people/companies are employed by each utility company? Unknown.

Are there any communities or areas where the private contractors overlap? There are a number of private contractors and entities that serve multiple utilities. See list above.

#### 10. THIRD PARTY ADMINISTRATION

## What are the pluses and minuses of third party administration of EE programs?

- + Addresses in the most direct and efficient manner the utility's disincentive to promote EE. EE reduces a utility's sales and revenues. A third-party independent administrator is motivated solely by efficiency objectives.
- + Eliminating the inherent conflict of interest in utility administration of EE also serves to reduce the level of regulatory scrutiny over EE program implementation. A third-party administrator will be primarily motivated to achieve EE goals, consequently there is greater assurance that EE expenditures/strategies are geared toward ultimate goal of achieving EE savings.
- + Eliminates the patchwork of program offerings in the State and replaces with uniform, consistent programs.
- + Achieves greater efficiencies by eliminating the need for each utility to assess potential, design programs, implement programs, and evaluate/verify program savings. The general area of duplication of EE programs and plans among and between utilities can readily be comprehensively
- To achieve the benefits of third-party administrator, proper design, oversight and accountability is critical. Third-party administrator of EE should not be attempted unless state is committed to:
  - 1. Full utility participation/funding and cooperation
  - 2. Secure and stable EE funding
  - 3. Connection between EE and utility least cost resource planning
  - 4. Accountability of third-party administrator

#### 11. ENERGY SAVINGS

Can utilities save 1.5% of their energy demand through energy efficiency in Iowa each year for the next 10 years, as was required in Minnesota in 2007? What is an aggressive but do-able target for Iowa?

The goal of utilities saving 1.5% of their energy demand through energy efficiency in Iowa each year over the next 10 years is aggressive, but do-able with increased energy

efficiency investment. 2006 IOU results are below this goal. However, OCA understands that a number of utilities are now reliably securing efficiency at a rate of 1% or more per year while spending between 2% and 2.5% of annual revenues. These figures do not include load control programs. OCA further understands that other states (MA and CT) are considering dramatic ramp-up of existing EE efforts that would bring savings up to over 2% of load each year. Vermont's new goals call for approximately 2% statewide incremental savings in 2008 and about 10% savings over 2 years in geographically targeted areas.

Iowa electric utilities should adopt an energy resource planning approach that considers energy efficiency and distributed resource strategies on an equal footing with conventional supply options, accounting for their transmission and distribution benefits, carbon dioxide avoidance and value in risk reduction compared to other generation resources. Energy efficiency is a critical component of least cost integrated resource planning, and utilities should invest in EE at a level consistent with least cost integrated resource plans.